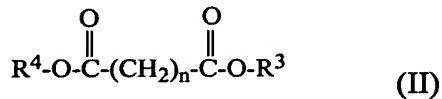


AMENDMENTS TO THE CLAIMS

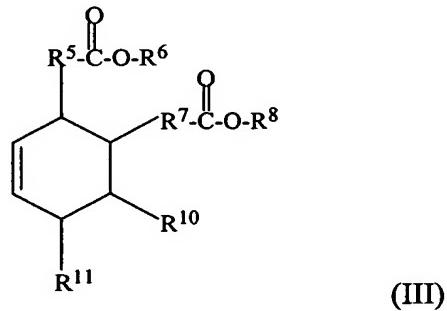
1. (Currently amended) A thermoplastic polymeric material composition comprising a thermoplastic polymeric material selected from the group consisting of thermoplastic polymers, thermoplastic polymer alloys, and combinations thereof; and an adhesion promoter containing (1) an adhesive resin in an amount of about 0.1% to about 15% by weight, based on the weight of the thermoplastic polymeric material in the composition; and (2) an ester having formula I, II, III, IV or a combination of any two or more of said esters in an amount of about 0.1% to about 15% by weight, based on the weight of the thermoplastic polymeric material in the composition:



wherein R¹ is a C₃-C₂₄ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; R² is a C₆-C₂₄[[C₃-C₂₄]]saturated fatty acid residue, or a C₆-C₂₄[[an]] unsaturated fatty acid residue having 1 to 6 carbon-to-carbon double bonds;



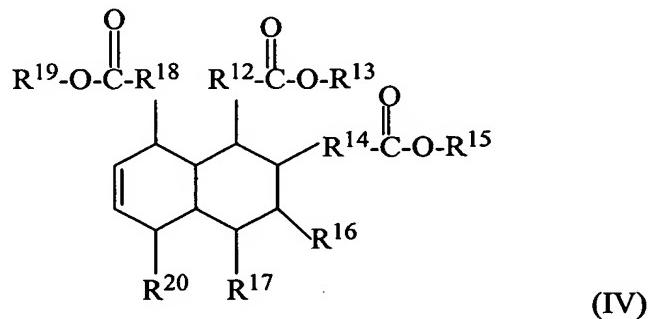
wherein n=3-24, and R³ and R⁴, same or different, are a C₃-C₂₄ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds;



wherein R⁵ and R⁷, same or different, are a C₃-C₂₄ hydrocarbon chain, straight chain or branched, either saturated or having 1 to 6 carbon-to-carbon double bonds;

R⁶ and R⁸, same or different, are C₃-C₂₄ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and

R¹⁰ and R¹¹, same or different, are a C₃-C₂₄, saturated hydrocarbon chain, straight chain or branched; or an unsaturated C₃-C₂₄, hydrocarbon chain, straight chain or branched, having 1 to 6, carbon-to-carbon double bonds;



wherein R¹², R¹⁴ and R¹⁸, same or different, are a C₃-C₂₄ hydrocarbon chain, straight chain or branched, either saturated or having 1 to 6 carbon-to-carbon double bonds;

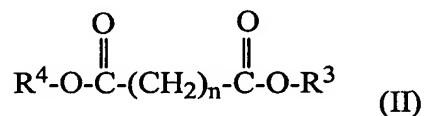
R¹³, R¹⁵ and R¹⁹, same or different, are a C₃-C₂₄ alkyl, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and

R¹⁶, R¹⁷ and R²⁰, same or different, are a C₃-C₂₄ saturated hydrocarbon chain, straight chain or branched; or unsaturated C₃-C₂₄ hydrocarbon chain, straight chain or branched, containing 1 to 6 carbon-to-carbon double bonds.

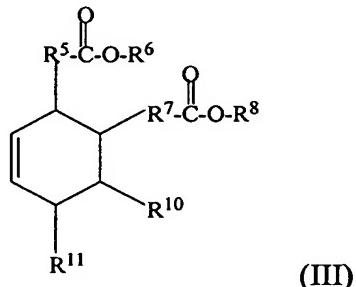
2. (Currently amended) A thermoplastic polymeric material composition in accordance with claim 1, wherein the ester is selected from the group consisting of formula I, II, III, IV, and a combination of any two or more of said esters:



wherein R¹ is a C₃-C₁₈ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and R² is a C₈-C₁₈ saturated fatty acid residue, or a C₈-C₁₈[[an]] unsaturated fatty acid residue having 1 to 3 carbon-to-carbon double bonds;



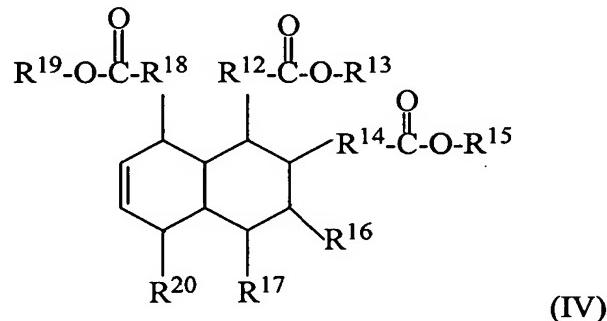
wherein n=6-18, and R³ and R⁴, same or different, are a C₃-C₁₈ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds;



wherein R⁵ and R⁷, are a C₆-C₂₄ hydrocarbon chain, straight chain or branched; either saturated or having 1 to 3 carbon-to-carbon double bonds;

R⁶ and R⁸, same or different, are a C₃-C₁₈ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and

R¹⁰ and R¹¹, same or different, are a C₃-C₁₈, saturated hydrocarbon chain, straight chain or branched; or an unsaturated hydrocarbon chain, straight chain or branched, containing 1 to 3 carbon-to-carbon double bonds;



wherein R¹², R¹⁴ and R¹⁸, same or different, are a C₈-C₁₈, hydrocarbon chain, straight chain or branched, either saturated or having 1 to 3 carbon-to-carbon double bonds;

R¹³, R¹⁵ and R¹⁹, same or different, are a C₆-C₁₈ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and

R¹⁶, R¹⁷ and R²⁰, same or different, are a C₆-C₁₈ saturated hydrocarbon chain, straight chain or branched; or an unsaturated C₆-C₁₈ hydrocarbon chain, straight chain or branched, containing 1 to 3 carbon-to-carbon double bonds.

3. (Original) The composition of claim 1, wherein the adhesive resin is a condensation product of a methylene acceptor and a methylene donor.

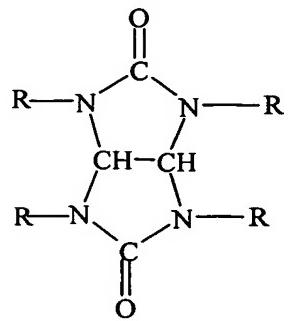
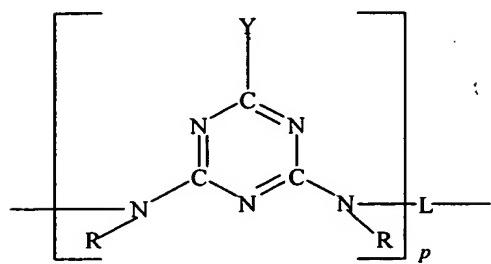
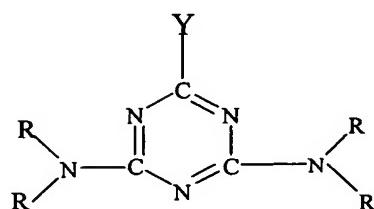
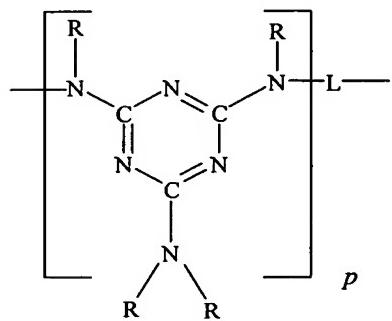
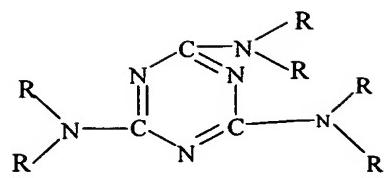
4. (Original) The composition of claim 3, wherein the adhesive resin is selected from the group consisting of phenol-formaldehyde, melamine-formaldehyde; naphthol-formaldehyde; polyepoxide; a reaction product of triallyl cyanurate, resorcinol, and formaldehyde; a reaction product of p-chlorophenol, resorcinol, and formaldehyde; a copolymer of styrene, butadiene, and 2-vinylpyridine; and mixtures thereof.

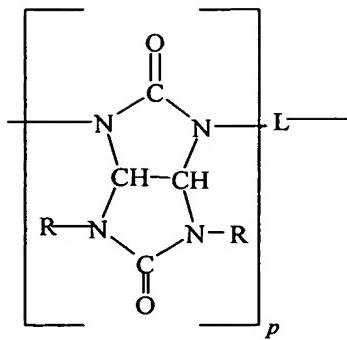
5. (Original) The composition of claim 4, wherein the phenol-formaldehyde resin is resorcinol-formaldehyde.

6. (Currently amended) The composition of claim 1, wherein the adhesive resin comprises a ~~is selected from the group consisting of derivatives of melamine, acetoguanamine, benzoguanamine, cyclohexylguanamine or[[and]] glycoluril monomer or oligomer monomers and oligomers~~ of these monomers, which have been substituted ~~on average~~ at two or more positions on the monomer or on each unit of the oligomer with vinyl terminated radicals, the vulcanizable rubber composition being free of resorcinol.

7. (Currently amended) The composition of claim 6, wherein at least one of the adhesive resins has been further substituted ~~on average~~ at one or more positions with a radical which comprises carbamoylmethyl or amidomethyl.

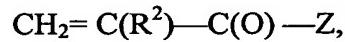
8. (Original) A composition of claim 6, wherein the adhesive resin is selected from compounds of the formula:



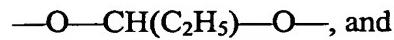
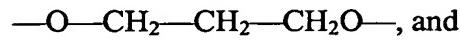
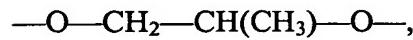
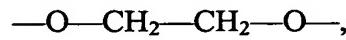


and positional isomers thereof,

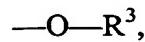
wherein, in each monomer and in each polymerized unit of the oligomers, Y is selected from methyl, phenyl and cyclohexyl, and, on average, at least two R are -CH₂-R¹, and any remaining R are H, and at least 2 R¹ are radicals selected from



wherein R² is hydrogen or C₁-C₁₈ alkyl, and Z is a radical selected from



any remaining R¹ radicals are selected from



—NH—C(O)—R⁴, and

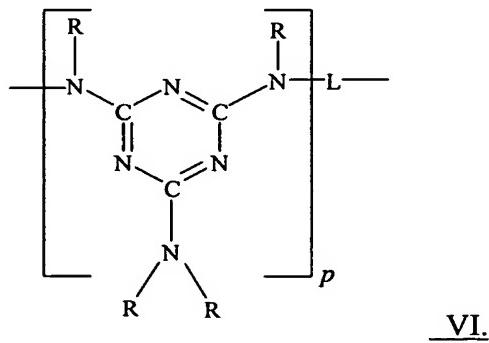
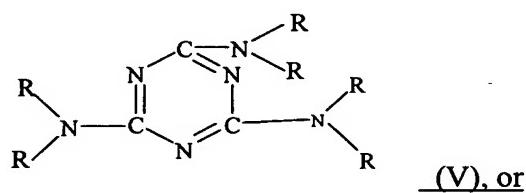
wherein R₃ is hydrogen or R₄, and R₄ is a C₁-C₁₈ alkyl, alicyclic, hydroxyalkyl, alkoxyalkyl or aromatic radical, and in the oligomers, P is 2 to about 10, and L is methylene or the radical —CH₂—O—CH₂—.

9. (Original) The composition of claim 8, wherein on average at least one R¹ in each monomer or in each oligomerized unit of the adhesive resin is:

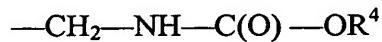
—NH—C(O)—OR⁴

wherein R⁴ is as defined in claim 8.

10. (Currently amended) The composition of claim 9, wherein the adhesive resin is a compound of the formula



11. (Currently amended) The composition of claim 10, wherein in the adhesive resin formulas, ~~on average~~ at least one R radical in each monomer or in each oligomerized unit is

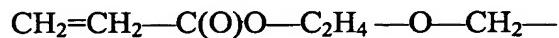


wherein R⁴ is a C₁-C₁₈ alkyl, alicyclic, hydroxyalkyl, alkoxyalkyl or aromatic radical.

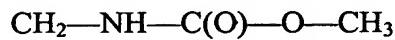
12. (Currently amended) The composition of claim 10, wherein ~~on average~~ at least two R radicals are selected from



and



and at least one R radical is selected from



and



13. (Currently amended) The composition of claim 8, further comprising an additional additive selected from hydroxymethylated and alkoxyethylated (~~alkoxy having 1-5 carbon atoms~~) derivatives of melamine, acetoguanamine, benzoguanamine, cyclohexylguanamine and glycoluril and their oligomers.

14. (Currently amended) The composition of claim 6, wherein the adhesive resin comprises is a derivative of melamine or an oligomer of melamine.

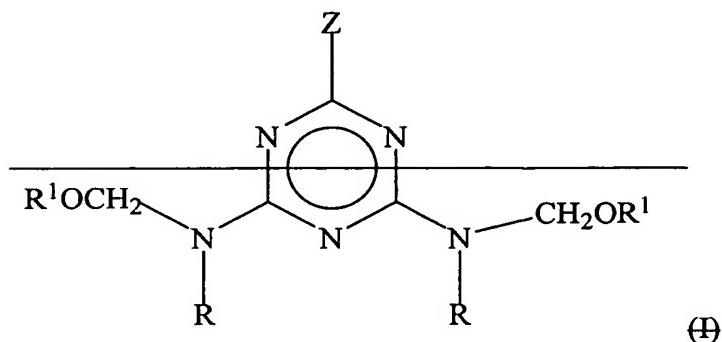
15. (Currently amended) The composition of claim 6, wherein the adhesive resin comprises is a derivative of acetoguanamine or an oligomer of acetoguanamine.

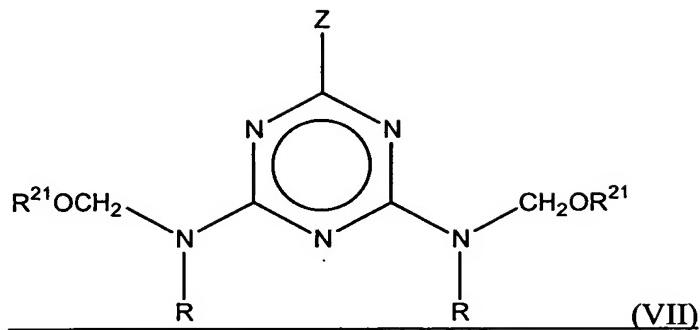
16. (Currently amended) The composition of claim 6, wherein the adhesive resin comprises is a derivative of benzoguanamine or an oligomer of benzoguanamine.

17. (Currently amended) The composition of claim 6, wherein the adhesive resin comprises is a derivative of cyclohexylguanamine or an oligomer of cyclohexylguanamine.

18. (Currently amended) The composition of claim 1, wherein the adhesive resin is a self-condensing alkylated triazine resin selected from the group consisting of (i), (ii), and (iii):

(i) a self-condensing alkylated triazine resin having at least one of imino or methylol functionality and represented by formula (VII)[[I]]





(ii) an oligomer of (i), or

(iii) a mixture of (i) and (ii), wherein

Z is $-\text{N}(\text{R})(\text{CH}_2\text{OR}^{21})-\text{N}(\text{R})(\text{CH}_2\text{OR}^1)$, aryl having 6 to 10 carbon atoms, alkyl having

1 to 20 carbon atoms or an acetyl group,

each R is independently hydrogen or $-\text{CH}_2\text{OR}^{21}-\text{CH}_2\text{OR}^1$, and

each $\text{R}^{21}[[\text{R}^1]]$ is independently hydrogen or an alkyl group having 1 to 12 carbon atoms,

provided that at least one R is hydrogen or $-\text{CH}_2\text{OH}$ and at least one $\text{R}^{21}[[\text{R}^1]]$ is selected from the alkyl group; and

wherein the vulcanizable rubber-thermoplastic polymeric material composition is substantially free of methylene acceptor coreactants.

19. (Original) The composition of claim 18, wherein at least one R group is hydrogen.

20. (Currently amended) The composition of claim 19, wherein at least one $\text{R}^{21}[[\text{R}^1]]$ group is a lower alkyl group having 1 to 6 carbon atoms.

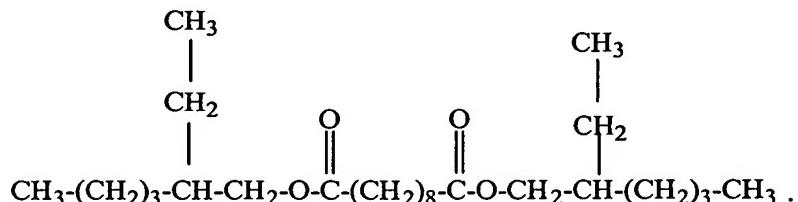
21. (Currently amended) The composition of claim 20, wherein the adhesive resin comprises is a derivative of melamine, benzoguanamine, cyclohexylguanamine, or acetoguanamine, or an oligomer thereof.

22. (Currently amended) The composition of claim 20, wherein Z is -N(R)(CH₂OR¹) -N(R)(CH₂OR²¹).

23. (Original) The composition of claim 4, wherein the phenol-formaldehyde resin is resorcinol-formaldehyde; and the melamine-formaldehyde resin is N-(substituted oxymethyl) melamine-formaldehyde.

24. (Original) The composition of claim 1, wherein the ester has the formula II and comprises a saturated diester formed by the reaction of sebacic acid and a C₆-C₂₄ alcohol, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds.

25. (Original) The composition of claim 24, wherein the alcohol is 2-ethylhexyl alcohol, and the ester has the following formula:



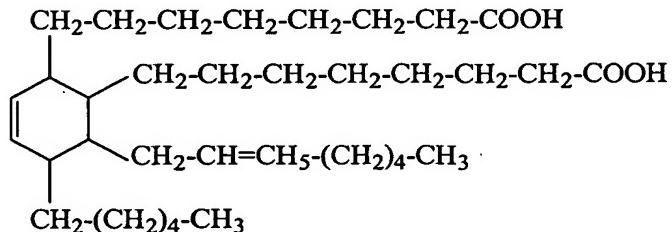
26. (Original) The composition of claim 1, wherein the ester is an unsaturated diester formed by the reaction of a C₃₆ dimer acid and a C₃-C₁₈ alcohol, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds.

27. (Original) The composition of claim 26, wherein the alcohol is 2-ethylhexyl alcohol.

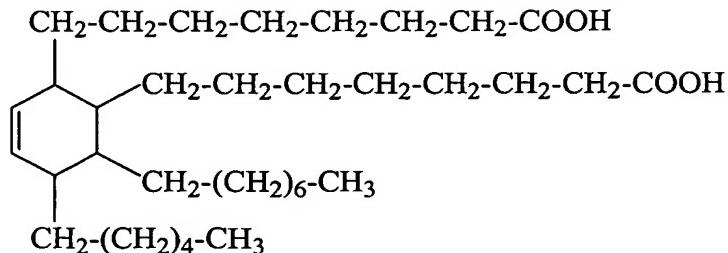
28. (Original) The composition of claim 26, wherein the alcohol is tridecyl alcohol.

29. (Original) The composition of claim 26, wherein the alcohol is oleyl alcohol.

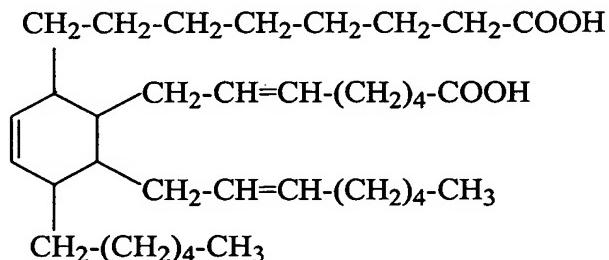
30. (Original) The composition of claim 1, wherein the ester comprises the following dimer acid reacted with a C₃-C₂₄ alcohol:



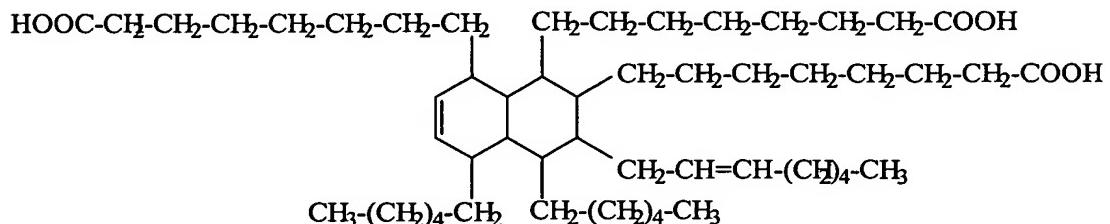
31. (Original) The composition of claim 1, wherein the ester comprises the following dimer acid reacted with a C₃-C₂₄ alcohol:



32. (Original) The composition of claim 1, wherein the ester comprises the following dimer acid reacted with a $\text{C}_3\text{-C}_{24}$ alcohol:



33. (Original) The composition of claim 1, wherein the ester is the reaction product of a $\text{C}_3\text{-C}_{24}$ alcohol with a tricarboxylic acid, having the following formula:



34. (Original) The composition of claim 1, wherein the ester is a combination of compounds of formula I, II, III, and IV.

35. (Original) The composition of claim 34, wherein the ester is a reaction product of a C₃-C₂₄ alcohol straight chain or branched, saturated or unsaturated having 1 to 3 carbon-to-carbon double bonds, with a dimer acid having CAS #61788-89-4.

36. (Original) The composition of claim 35, wherein the alcohol is 2-ethylhexyl alcohol.

37. (Original) The composition of claim 35, wherein the alcohol is a tridecyl alcohol.

38. (Original) The composition of claim 35, wherein the alcohol is an oleyl alcohol.

39. (Original) The composition of claim 1, wherein the adhesion promoter is a liquid selected from the group consisting of a solvent solution and a water-based emulsion.

40. (Original) The composition of claim 39, wherein the adhesion promoter is a solvent solution comprising 2-ethylhexyl alcohol.

41. (Original) The composition of claim 1, wherein the adhesion promoter is mixed with a solid, inert carrier.

42. (Original) The composition of claim 41, wherein the solid, inert carrier is calcium silicate.

43. (Original) The composition of claim 1, further comprising a reactive diluent in an amount of about 0.5% to about 50% by weight, based on the total weight of the adhesion promoter.

44. (Currently amended) The composition of claim 43[[41]], wherein the reactive diluent is a monomer selected from the group consisting of (1) a glycidyl ether; (2) a diglycidyl ether; (3) an aliphatic, straight chain epoxide; (4) an epoxidized vegetable oil; (5) a cycloaliphatic epoxy; (6) a glycidyl ester; (7) a diglycidyl ester; and any combination thereof.

45. (Original) A cord-reinforced article of manufacture comprising a plurality of cords selected from polymeric cords, metal cords, glass cords, and a combination thereof, adhered to the thermoplastic polymeric material composition of claim 1.

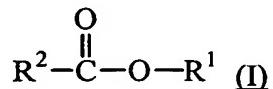
46. (Original) The composition of claim 1, wherein the R², R⁵, R⁷, R¹², R¹⁴ are fatty acid residues derived from animal or vegetable fatty acids.

47. (Original) The composition of claim 46, wherein the fatty acids are selected from the group consisting of butter; lard; tallow; grease; herring; menhaden; pilchard;

sardine; babassu; castor; coconut; corn; cottonseed; jojoba; linseed; oiticia; olive; palm; palm kernel; peanut; rapeseed; safflower; soya; sunflower; tall; tung; and mixtures thereof.

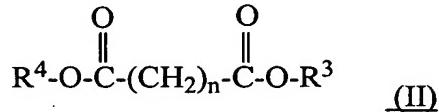
48. (Original) The composition of claim 47, wherein the fatty acid residues are selected from the group consisting of hexanoic; octanoic; decanoic; dodecanoic; 9-dodecenoic; tetradecanoic; 9-tetradecenoic; hexadecanoic; 9-hexadecenoic; octadecanoic; 9-octadecenoic; 9-octadecenoic, 12-hydroxy; 9, 12-octadecadienoic; 9, 12, 15-octadecatrienoic; 9, 11, 13-octadecatrienoic; 9, 11, 13-octadecatrienoic, 4-oxo; octadecatrenoic; eicosanoic; 11-eicosenoic; eicosadienoic; eicosatrienoic; 5, 8, 11, 14-eicosatetraenoic; eicosapentaenoic; docosanoic; 13-docosenoic; docosatetraenoic; 4, 8, 12, 15, 19-docosapentaenoic; docosahexaenoic; tetracosenoic; and 4, 8, 12, 15, 18, 21-tetracosahexaenoic.

49. (Currently amended) A method of increasing the adhesion of a thermoplastic polymeric material composition to a polymer, glass, or metal substrate, said thermoplastic polymeric material composition comprising a thermoplastic polymeric material selected from the group consisting of thermoplastic polymers, thermoplastic polymer alloys, and combinations thereof, and an adhesive resin, comprising adding to said thermoplastic polymeric material composition, in an amount of about 0.1% to 15% by weight, based on the weight of the rubber, an ester having formula I, II, III, IV, or mixtures thereof:

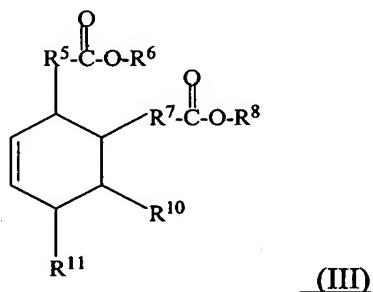


wherein R¹ is a C₃-C₂₄ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; R² is a [[C₃-C₂₄]] C₆-C₂₄ saturated fatty

acid residue, or [[an]]a C₆-C₂₄ unsaturated fatty acid residue having 1 to 6 carbon-to-carbon double bonds;



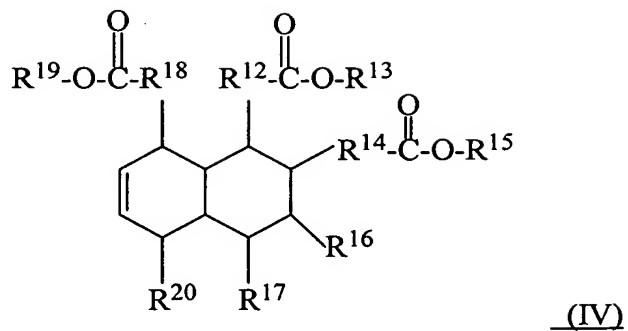
wherein n=3-24 and R³ and R⁴, same or different, are a C₃-C₂₄ alkyl radical, straight chain or branched;



wherein R⁵ and R⁷, same or different, are a C₃-C₂₄ hydro carbon chain, straight chain or branched, either saturated or having 1 to 6 carbon-to-carbon double bonds;

R⁶ and R⁸, same or different, are a C₃-C₂₄ alkyl radical, straight chain or branched; and

R¹⁰ and R¹¹, same or different, are a C₃-C₂₄, saturated hydrocarbon chain, straight chain or branched; or an unsaturated C₃-C₂₄, hydrocarbon chain, straight chain or branched, having 1 to 6 carbon-to-carbon double bonds;



wherein R¹², R¹⁴ and R¹⁸, same or different, are a C₃-C₂₄ hydrocarbon chain, straight chain or branched, either saturated or having 1 to 6 carbon-to-carbon double bonds;

R¹³, R¹⁵ and R¹⁹, same or different, are C₃-C₂₄ alkyl radical, straight chain or branched, saturated or unsaturated containing 1 to 3 carbon-to-carbon double bonds; and

R¹⁶, R¹⁷ and R²⁰, same or different, are C₃-C₂₄ saturated hydrocarbon chain, straight chain or branched; or unsaturated C₃-C₂₄ hydrocarbon chain, straight chain or branched, containing 1 to 6 carbon-to-carbon double bonds.

50. (Original) The method of claim 49, wherein the substrate is a plurality of cords.

51. (Original) The method of claim 49, wherein the substrate is a polymeric sheet or fabric.

52. (Original) The method of claim 49, wherein the substrate is metal flat stock material.

53. (Original) The method of claim 49, wherein the adding comprises adding a liquid comprising the adhesive resin and the ester having Formula I, II, III, IV, or mixtures thereof, and the liquid is selected from the group consisting of a solvent solution and a water-based emulsion.

54. (Original) The method of claim 53, is a solvent solution comprising 2-ethylhexyl alcohol.

55. (Original) The method of claim 53, wherein the liquid is a solvent solution further comprising a reactive diluent in an amount of about 0.5% to about 50% by weight, based on the total weight of the adhesive resin and the ester having Formula I, II, III, IV, or mixtures thereof.

56. (Original) The method of claim 55, wherein the reactive diluent is a monomer selected from the group consisting of (1) a glycidyl ether; (2) a diglycidyl ether; (3) an aliphatic, straight chain epoxide; (4) an epoxidized vegetable oil; (5) a cycloaliphatic epoxy; (6) a glycidyl ester; (7) a diglycidyl ester; and any combination thereof.

57. (Original) The method of claim 49, wherein the adding comprises adding a mixture of the adhesive resin and the ester having Formula I, II, III, IV, or mixtures thereof, and a solid, inert carrier.

58. (Original) The method of claim 49, wherein the thermoplastic polymeric material is heated to a temperature sufficient to melt the thermoplastic material.